render SP cells susceptible to T cell mediated destruction indicating that T cell therapy may have a powerful effect on drug resistant tumor cells when used as adjunct therapy.

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IMPROVED SURVIVAL FOR PATIENTS UNDERGOING AUTOLOGOUS STEM CELL TRANSPLANT IN FIRST OR LATER REMISSION FOR PRIMARY CNS LYMPHOMA

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Background: Survival for patients with primary CNS lymphoma (PCNSL), in general, is poor with patients requiring frequent chemotherapy treatments or receiving whole-brain radiation therapy, which can potentially result in significant neurologic decline and dementia. Because of the improved survival of high risk patients with aggressive lymphoma undergoing autologous stem cell transplant (ASCT), we began ASCT for patients with PCNSL in first or later remission with chemotherapy sensitive disease. We now update the outcomes of patients who have had at least 100 day follow up post ASCT. **Baseline Characteristics:** Between June, 2000 and March, 2007, 16 patients underwent ASCT for PCNSL. Median age at transplant was 50 years old (range 30–67). Median number of prior treatments 2 (range 1–3). Median time from diagnosis to transplant was 7.5 months (range 2.9 to 75.8). Median International Extranodal Working Study Group Prognostic Score: 2 (range 0–3). Disease status at transplant: First CR 6 patients, later CR or PR 10 patients. Median follow up from diagnosis was 45 months. **Results:** Sixteen patients underwent ASCT for PCNSL and have a minimum of 100 days follow-up. All patients received BEAM conditioning. Median follow up post-transplant was 32 months (range 3–85 months). Eight patients have relapsed at a median of 217 days (range 40–1349). Of the patients who relapsed, two have died of disease progression and the remaining five are alive after additional therapy. Median overall survival from transplant has not been reached. Three year overall and event free survival from transplant are 82% and 53%, respectively. Median progression free survival from BMT was 45 months. Overall survival from diagnosis at 5 years was 83%. **Conclusions:** Although limited by patient selection and retrospective biases, this review suggests that ASCT for PCNSL demonstrates improved overall survival when compared to historical controls with similar PCNSL Prognostic Scores (2 year survival for patients from diagnosis with PS 2–3 was 48% in a prior published study). ASCT in first remission in patients with PCNSL appears promising and may limit the need for additional therapy which can be myelosuppressive or result in neurologic decline, secondary to radiation therapy, in patients who are appropriate candidates.

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ALLOGENEIC STEM CELL TRANSPLANTATION FOR POST-AUTOLOGOUS STEM CELL TRANSPLANT RELAPSE IN HODGKIN LYMPHOMA: EXPERIENCE AT A SINGLE CENTER

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Autologous stem cell transplantation (ASCT) is the standard of care for relapsed or refractory Hodgkin Lymphoma (HL) and has been associated with long-term survival rates of approximately 40%. Data regarding post-ASCT HL relapse are sparse, particularly with regard to subsequent allogeneic stem cell transplantation (allo SCT). To explore the impact of allo SCT on post-ASCT relapsed HL, we evaluated all adult cases from mid 1992 to mid 2007. Primary objectives of this descriptive retrospective study were to determine transplant-related characteristics, survival and the incidence of GVHD. Fifteen cases (7 females, 8 males) met study entry criteria. Histology included NS (14) and MC (1); 5 had primary refractory HL. All initially received ABVD and salvage regimens varied. BEAM was the most commonly administered ASCT conditioning regimen and 9 received post-ASCT radiation. Median time to post-ASCT relapse was 8 months (range 1–49). Pre-allo SCT disease status was: CR (2); sensitive (6); stable (5); missing (2). Median age at allo SCT was 34.4 years (range 20.0–54.3). Reduced intensity (RI) and ablative regimens were administered in 13 and 2 cases, respectively. RI regimens comprised 3 major categories: fludarabine and melphalan (7); pentostatin, TBI and photopheresis (4); other (2). Donors were siblings (6) or unrelated volunteers (9); 5 donor/recipient pairs were HLA mismatched. GVHD prophylaxis included: tacrolimus or CSA plus MMF (7); tacrolimus and sirolimus (5); tacrolimus or CSA with mini-methotrexate (3). Seven patients are deceased with a median survival post-allo SCT of 9 months (range 1–18). HL was the primary cause of death for 4. Of the 8 surviving (median follow-up 8.5 months; range 2–19), 2 have relapsed HL treated with further radiation or donor leukocytes. Overall, 60% were treated for acute or chronic GVHD and 4 of those surviving have extensive chronic GVHD. Of these 4, 3 remain in remission more than 1-year after allo SCT.

Conclusions: Follow-up, survival, and complications in HL relapsed after ASCT are largely under-reported in the literature. Previous evidence suggests a high TRM for HL after allo SCT utilizing traditional ablative regimens, however, outcomes are lesser known in a new era of RI options. There is literature to suggest that allo SCT may afford a GV-HL effect that is potentially curative, but data are currently lacking to support a standard treatment approach. Novel approaches and/or therapeutic clinical trials are needed.

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A SUCCESSFUL TREATMENT STRATEGY FOR PATIENTS WITH T-NHL: ALLOGENEIC TRANSPLANTATION AFTER BEAM-ALEMTUZUMAB CONDITIONING

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For patients with relapsed or refractory T-cell lymphomas the prognosis is grim and no standard treatment strategy exists. In addition, mature T/NK-cell-lymphomas are an infrequent and heterogeneous group of lymphoid tumors. Ten patients with relapsed T-cell Non-Hodgkin's lymphoma (NHL) were treated with allogeneic stem cell transplantation (SCT) after 1 to 2 cycles of CLAEG (cladribine, cytarabine, etoposide/etopophos and G-CSF) induction therapy immediately followed by conditioning with BEAM (carmustine, cytarabine, etoposid/etopophos, melphalan) combined with alemtuzumab (Campath-1H). The following subtypes were included: 5 peripheral T-cell lymphomas (not otherwise specified), 2 angioimmunoblastic, 1 ALK negative anaplastic large cell, 1 extranodal NK/nasal type and 1 enteropathy-type T-cell lymphoma. All patients had at least 2 different treatment regimens previously. After 1 to 2 cycles of induction chemotherapy with CLAEG, one patient achieved a CR, 6 patients a PR and 3 had SD. Conditioning with BEAM combined with alemtuzumab was well tolerated. Seven patients received peripheral blood stem cells (PBSC) from HLA-identical unrelated donors and 2 from matched sibling donors, 1 patient received bone marrow from an HLA one-allele mismatched unrelated donor. Engraftment was rapid and the treatment well tolerated. There were 4 cases of grade 4 mucositis, 2 cases of sepsis in neutropenia, and 1 case of grade IV liver toxicity. Prophylaxis for graft-versus-host disease (GvHD) consisted of cyclosporine A and MTX or mycophenolate mofetil. No grade III or IV acute GvHD was seen and only 3 patients presented with grade II GvHD. Two patients experienced limited chronic GvHD. Asymptomatic CMV reactivation was found in 4 cases and all were treated successfully. Late infections occurred in four patients, including CMV infection, viral enteritis, aspergillus pneumonia and streptococcal sepsis. All patients achieved a CR after allogeneic transplantation. Currently, 3 patients have relapsed. One patient died in CR on day 233 post transplantation due to aspiration pneumonia caused by non-malignant bowel stenosis. All other patients remained in CR for up to 26+ months. This treatment approach with CLAEG induction followed by conditioning with BEAM combined with alemtuzumab shows a surprisingly good outcome in a group of T-cell NHL patients with a very poor prognosis. Allogeneic SCT with this strategy seems to be a promising therapeutic option for these patients.